

## Amendments to the Claims

1. (Currently Amended) A simulator of intelligent client workstations, ~~at level 2 of an OSI model for generating one or more unique network data frames for transmission, the simulator comprising:~~

~~at least one or more protocol application modules~~ module for generating ~~one or more~~ data streams that emulate ~~one or more client requests from at least one application running at the one or more client workstations;~~

~~one or more protocol stacks each representing a group of protocols at multiple layers, said one or more protocol stacks coupled to said one or more~~ at least one protocol stack component associated with the at least one protocol application module ~~modules for and receiving said one or more data streams to encapsulating~~ encapsulate said the ~~one or more data streams according to at least one with associated one or more protocol stack by providing the data streams with header data according to the at least one protocol stack stacks, thereby providing encapsulated data streams; and~~

a data delivery module associated with the at least one protocol stack component for ~~receiving one or more encapsulated data streams and inserting a unique hardware address identifier into each of the said one or more encapsulated data streams to generate one or more network data frames for delivery to a system under test;~~

~~wherein, each inserted of the unique hardware address identifier identifiers identifies an associated one of the corresponding to an emulated client workstation workstations that originated the client request associated with said one or more encapsulated data streams.~~

2. (Cancelled)

3. (Currently Amended) The simulator of ~~intelligent workstations at level 2 as claimed in claim 1, the simulator further comprising including:~~

a scripting interface module associated with ~~coupled to said the at least one or more~~ protocol application module modules, the scripting interface module receiving ~~one or more~~ emulated user actions to interpret, and ~~passing pass said the emulated~~ user actions to ~~said the at least one or more~~ protocol application module modules for use in generating said the one or more data streams thereof.

4. (Currently Amended) The simulator of ~~intelligent workstations at level 2 as claimed in claim 3, wherein the scripting interface module comprises includes:~~

at least one or more script scripts having ~~one or more~~ instructions for emulating the emulated user actions, ~~wherein said emulated user actions are received from the script.~~

5. (Currently Amended) The simulator of ~~intelligent workstations at level 2 as claimed in claim 3, wherein the scripting interface module further comprises includes:~~

a service module that interprets ~~said the one or more~~ instructions for emulating the emulated user actions.

6. (Currently Amended) The simulator of ~~intelligent workstations at level 2 as claimed in claim 3, wherein the simulator further comprising includes:~~

a command and control service module associated with ~~coupled to said the~~ scripting interface module for enabling dynamic loading and execution of ~~said the one or more~~ instructions emulating the user actions.

7. (Currently Amended) The simulator of ~~intelligent workstations at level 2 as claimed in claim 1, the simulator further comprising including:~~

a command and control service module associated with ~~coupled to said the at least one or more~~ protocol stack component stacks for enabling dynamic loading of ~~said the at least one or more~~ protocol stack stacks.

8. (Currently Amended) The simulator of ~~intelligent workstations at level 2 as~~ claimed in claim 1, ~~the simulator further~~ comprising including:

an application programming interface ~~interposed between said one or more protocol stacks and the data delivery module, said application programming interface for~~ enabling each ~~one of said the at least one or more protocol stack component stacks to communicate with the data delivery module without modifications to any one of said one or more protocol stacks and the data delivery module.~~

9. (Currently Amended) The simulator of ~~intelligent workstations at level 2 as~~ claimed in claim 1, ~~the simulator further~~ comprising including:

an application programming interface ~~interposed between said one or more protocol application modules and said one or more protocol stacks, said application programming interface for~~ enabling the each at least one of said one or more protocol application module ~~modules to communicate with each one of said the at least one or more protocol stack component stacks without modifications to any one of said one or more protocol application modules and said one or more protocol stacks.~~

10. (Currently Amended) The simulator of ~~intelligent workstations at level 2 as~~ claimed in claim 3, ~~the simulator further~~ comprising including:

an application programming interface ~~interposed between the scripting interface module and said one or more protocol application modules, said application programming interface for~~ enabling the scripting interface module to communicate with ~~each one of said the at least one or more protocol application module modules without modifications to any one of said one or more protocol application modules and the scripting interface module.~~

11. (Currently Amended) The simulator of ~~intelligent workstations at level 2 as~~ claimed in claim 1, wherein ~~said the at least one or more protocol stack stacks is associated with at least one of a protocol suite selected from the group comprising:~~

a TCP/IP protocol ~~suite~~;  
a UDP/IP protocol ~~suite~~; and  
an SSL protocol suite.

12. (Cancelled)

13. (Cancelled)

14. (Currently Amended) The simulator of ~~intelligent workstations at level 2 as~~  
~~claimed in claim 1, further comprising:~~

~~wherein said network data frames are transmitted to a system under test, said simulator is~~  
~~further enabled to receive~~ means for receiving server and checking responses to said the client  
requests from and check said the system under test ~~responses to ensure correct operation of the~~  
system under test ~~operation~~.

15. (Currently Amended) The simulator of ~~intelligent workstations at level 2 as~~  
~~claimed in claim 1, wherein said simulator is enabled to~~ further comprising:

means for capturing capture and maintaining maintain client state data from the a system  
under test ~~and facilitate client transmissions using said state data~~.

16. (Currently Amended) A method for simulating ~~generating network data frames~~  
~~for simulation of a plurality of intelligent client~~ workstations ~~at level 2 of a protocol stack, the~~  
~~method comprising:~~

generating ~~one or more~~ data streams representing ~~one or more~~ emulated client requests  
from at least one application running on the client ~~one or more workstations identifier~~;

inserting header data associated with at least one a selected protocol stack into said the  
~~one or more~~ data streams to generate ~~one or more~~ protocol encapsulated data frames; and

adding ~~the unique~~ hardware address identifiers identifier to said the ~~one or more~~ protocol  
encapsulated data frames to generate network data frames for transmission to a system under test;

wherein each of the unique hardware address identifiers identifies an associated one of the client workstations.

17. (Currently Amended) The method ~~for generating network data frames as claimed in of~~ claim 16, ~~the method further comprising including:~~

receiving user actions for initiating emulation of ~~said~~ the emulated client requests.

18. (Cancelled)

19. (Cancelled)

20. (Currently Amended) The method ~~for generating a generalized network data frames as claimed in of~~ claim 16, ~~the method further comprising including:~~

dynamically loading ~~said the~~ at least one selected protocol stack for generating ~~said the one or more~~ protocol encapsulated data frames.

21. (Currently Amended) The method ~~for generating a network data frames as claimed in of~~ claim 16, ~~the method further comprising including:~~

receiving and checking responses associated with ~~said the emulated~~ client requests from the system under test ~~and checking said responses to ensure correct operation of the~~ system under test.

22. (Currently Amended) The method ~~for generating a network data frames as claimed in of~~ claim 16, ~~the method further comprising including:~~

capturing and maintaining client state data from the system under test ~~and facilitating transmissions using said state data.~~

23. (Currently Amended) The method ~~for generating a network data frames as claimed in of~~ claim 17, ~~the method further comprising including:~~

formulating ~~said the~~ user actions into ~~a plurality of~~ transactions for communication to and from ~~the system a unit~~ under test, wherein ~~said the one or more~~ data streams ~~representing emulated client requests~~ are generated ~~based on from said the~~ plurality of transactions.

24. (Currently Amended) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform ~~a the~~ method ~~steps of generating network data frames for simulating simulation of a plurality of client intelligent workstations at level 2 of a protocol stack~~, the method ~~steps~~ comprising:

generating ~~one or more~~ data streams representing ~~one or more~~ emulated client requests from at least one application running on the client ~~one or more~~ workstations;

inserting header data associated with at least one a selected protocol stack into ~~said the one or more~~ data streams to generate ~~one or more~~ protocol encapsulated data frames; and

adding ~~a unique~~ hardware address identifiers identifier to ~~said the one or more~~ protocol encapsulated data frames to generate network data frames for transmission to a system under test;

wherein, each of the inserted unique hardware address identifiers identifier identifies an associated one of the corresponding to an emulated client workstations workstation that originated the client request associated with said one or more encapsulated data frames.

25. (Currently Amended) The program storage device as claimed in claim 24, wherein the method ~~steps~~ further comprises ~~comprising~~:

receiving user actions for initiating emulation of ~~said the~~ emulated client requests.

26. (Cancelled)

27. (New) The simulator of claim 1, wherein:

the unique hardware address identifiers comprise media access control (MAC) identifiers.

28. (New) The simulator of claim 1, wherein:  
the at least one protocol application module generates the data streams that emulate the client requests from a plurality of applications running at the client workstations.

29. (New) The simulator of claim 28, wherein:  
the at least one protocol stack component encapsulates the data streams thereof according to different protocol stacks by providing different ones of the data streams with header data according to different ones of the different protocol stacks, thereby providing the encapsulated data streams.

30. (New) The simulator of claim 1, wherein:  
the at least one protocol stack component encapsulates the data streams thereof according to different protocol stacks by providing different ones of the data streams with header data according to different ones of the different protocol stacks, thereby providing the encapsulated data streams.

31. (New) The method of claim 16, wherein:  
the unique hardware address identifiers comprise media access control (MAC) identifiers.

32. (New) The program storage device of claim 24, wherein:  
the unique hardware address identifiers comprise media access control (MAC) identifiers.